

Patent Abstracts of Japan

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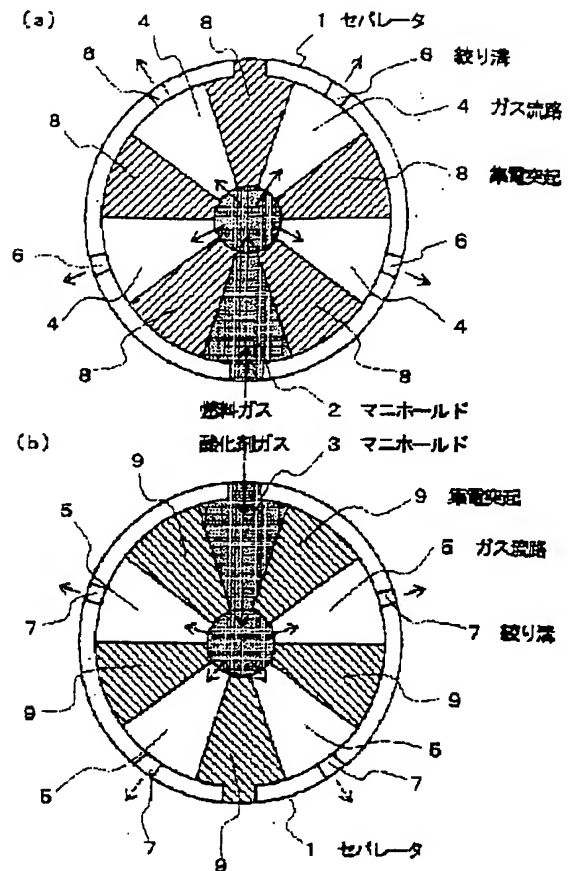
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TITLE : SOLID ELECTROLYTIC FUEL CELL



ABSTRACT : PROBLEM TO BE SOLVED: To provide a fuel cell at low cost, ensures gas separation, and shows a stable power generating characteristic, by interposing a metallic separator formed by a metallic plate into recessed and projecting parts between cells, using a recessed part formed on the electrode side as a gas passage, and using a projecting part as a current collecting member.

SOLUTION: By layering a plane cell which is formed by placing an anode electrode, a solid electrolyte layer, and a cathode electrode on a porous substrate via a metallic separator interposed there between, a solid electrolytic fuel cell is formed. In this fuel cell, the separator 1 is formed by press-working a heat-resistant and oxidation-resistant Ni-Cr alloy disk in a recessed and projecting form. In the separator 1, recessed parts and projecting parts which are inter-communicated to the anode electrode side at the center are alternately placed radially, one of the recessed parts is used as a manifold 2 having fuel gas supply opening, other recessed parts are used as gas passages 4 having gas exhaust opening of restricting grooves 6, and the projecting parts are used as current collecting protrusions 8. On the cathode electrode side, the recessed parts are used as oxidant gas supply manifold 3 and gas passages 5, and the projecting parts are used as current collecting protrusions 9.

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